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EXAMINER

NGUYEN, THU HA T

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 04/05/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/746,677

Applicant(s)

OLSEN, GREGORY P.

Examiner

Thu Ha T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-18 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-18 are presented for examination.

### **Response to Arguments**

2. Applicant's arguments filed on January 16, 2004 have been fully considered but they are not persuasive because of the following reasons:

3. Applicant argues that Yuasa does not teach or suggest varying a timing with which the message is communicated to the respective subsets of target devices. In response to Applicant's argument, Examiner asserts that Yuasa does teach varying a timing with which the message is communicated to the respective subsets of target devices as shown in col. 17 lines 49-54, col. 19 lines 7-col. 21 lines 51, col. 28 lines 10-42. The message is unicast, multicast and broadcast to group units by scheduling control with different timing based on priority.

4. Applicant argues that Iwamura does not teach estimating a number of devices coupled to the network. In response to Applicant's argument, Examiner asserts that Iwamura teaches and discloses the step of estimating a number of devices coupled to the network as shown in figures 1, 4, 7, col. 1 lines 37-col. 2 lines 11, col. 13 lines 54-col. 15 lines 15, col. 16 lines 63-col. 17 lines 29, col. 25 lines 6-50. A device attempting to form a group first the device sends/receives a message and an acknowledge to/from other devices to check and determine the number of devices in a network. Cheking and determining whether the number of devices in a group is exceed the predetermined the maximum number of devices in the group.

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5. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the reason to modify Yuasa to include the step of estimating a number of devices and determining a number of subgroups because it would have an efficient communications system that improves and reduces the traffic volume by dividing group into smaller group or subgroup and using broadcast method to particular subgroup.

6. As a result, cited prior arts do disclose a system and method for dividing a set of target devices into subset of target devices, as broadly claimed by the Applicant. Applicant clearly has still failed to identify specific claim limitations that would define a clearly patentable distinction over prior art.

7. Therefore, the examiner asserts that cited prior arts teach or suggest the subject matter broadly recited in independent claims 1, 4, 7, 10, 13, and 16. Claims 2-3, 5-6, 8-9, 11-12, 14-15, and 17-18 are also rejected at least by virtue of their dependency on independent claims and by other reasons set forth in the previous office action [see paper no. 3]. Accordingly, claims 1-18 are rejected.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim1, 4, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 4, and 7 recite the limitation "the number of subsets of target devices " in the claimed language. There is insufficient antecedent basis for these limitations in these claims.

Claims 1, 4, and 7 recited the limitation " the number of subsets of target devices" in lines 4-5 is unclear. Applicant is required to explain, specify more in the claimed language.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. Claims 1, 4, 7, 10, 13, and 16 are rejected under 35 U.S.C. § 102(e) as being anticipated by **Yuasa et al.**, (hereinafter Yuasa) U.S. Patent No. **6,085,238**.

12. As to claim 1, **Yuasa** teaches the invention as claimed, including a method comprising:

dividing a set of target devices to which a message is targeted into subsets of target devices, wherein a subset to which a particular device belongs is determined based on an identifier of the device and the number of subsets of target devices (abstract, figure 1, col. 8 lines 40-col. 10 lines 67, col. 17 lines 20-col. 18 lines 56, col. 45 lines 59-col. 48 lines 10); and

varying a timing with which the message is communicated to the respective subsets of target devices (col. 17 lines 49-54, col. 19 lines 7-col. 21 lines 51).

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13. As to claim 4, **Yuasa** teaches the invention substantially as claimed, including an article comprising a machine-accessible medium to provide machine readable instructions that, when executed, cause one or more electronic systems to:

divide a set of target devices to which a message is targeted into subsets of target devices, wherein a subset to which a particular device belongs is determined based on an identifier of the device and the number of subsets of target devices (abstract, figure 1, col. 8 lines 40-col. 10 lines 67, col. 17 lines 20-col. 18 lines 56, col. 45 lines 59-col. 48 lines 10); and

vary a timing with which the message is communicated to the respective subsets of target devices (col. 17 lines 49-54, col. 19 lines 7-col. 21 lines 51).

14. As to claim 7, **Yuasa** teaches the invention substantially as claimed, including an electronic data signal embodied in a data communications medium shared among a plurality of network devices comprising sequences of instructions that, when executed, cause one or more electronic systems to:

divide a set of target devices to which a message is targeted into subsets of target devices, wherein a subset to which a particular device belongs is determined based on an identifier of the device and the number of subsets of target devices (abstract, figure 1, col. 8 lines 40-col. 10 lines 67, col. 17 lines 20-col. 18 lines 56, col. 45 lines 59-col. 48 lines 10); and

vary a timing with which the message is communicated to the respective subsets of target devices (col. 17 lines 49-54, col. 19 lines 7-col. 21 lines 51).

15. As to claim 10, **Yuasa** teaches the invention substantially as claimed, including a method comprising:

dividing a set of target devices to which a message is targeted into multiple subsets of target devices, wherein the subset to which a particular device belongs is determined based on an identifier of the device (abstract, figure 1, col. 8 lines 40-col. 10 lines 67, col. 17 lines 20-col. 18 lines 56, col. 45 lines 59-col. 48 lines 10); and

varying a timing with which the respective subsets of target devices respond to 6 the message (col. 17 lines 49-54, col. 19 lines 7-col. 21 lines 51).

### **Claim Rejections - 35 USC § 103**

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 2-3, 5-6, 8-9, 11-12, 14-15, and 17-18 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over **Yuasa** U.S. Patent No. **6,082,238**, in view of **Iwamura et al.**, (hereinafter **Iwamura**) U.S. Patent No. **6,396,814**.



18. As to claim 2, **Yuasa** does not explicitly teach the invention as claimed; however, **Iwamura** teaches wherein determining the subset of target devices to which the message is targeted comprises:

broadcasting the message over a network (figure 2, col. 13 lines 54-col. 15 lines 60);

receiving one or more responses to the message from target devices coupled to the network (figure 7, col. 1 lines 37-col. 2 lines 11);

estimating a number of devices coupled to the network (figures 1, 4, 7, col. 1 lines 37-col. 2 lines 11, col. 13 lines 54-col. 15 lines 15, col. 16 lines 63-col. 17 lines 29, col. 25 lines 6-50); and

determining a number of subgroups based, at least in part, on the estimated number of devices coupled to the network (figures 1, 4, 7, col. 1 lines 37-col. 2 lines 11, col. 6 lines 1-12, col. 13 lines 54-col. 15 lines 15, col. 16 lines 63-col. 17 lines 29, col. 25 lines 6-50). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of **Yuasa** and **Iwamura** to have the determining step of target devices by broadcasting the message, receiving one or more responses, estimating a number of devices and determining a number of subgroups because it would have an efficient communications system that improves and reduces the traffic volume by dividing group into smaller group or subgroup and using broadcast method to particular subgroup.

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19. As to claim 3, **Yuasa** does not explicitly teach the invention as claimed; however, **Iwamura** teaches wherein determining the subset of target devices to which the message is targeted comprises:

multicasting the message to a subnet of a network (figure 2, col. 13 lines 54-col. 15 lines 60);

receiving one or more responses to the message from target devices of the subnet (figure 7, col. 1 lines 37-col. 2 lines 11);

estimating a number of devices in the subnet (figures 1, 4, 7, col. 1 lines 37-col. 2 lines 11, col. 13 lines 54-col. 15 lines 15, col. 16 lines 63-col. 17 lines 29, col. 25 lines 6-50); and

determining a number of subgroups based, at least in part, on the estimated number of devices in the subnet (figures 1, 4, 7, col. 1 lines 37-col. 2 lines 11, col. 13 lines 54-col. 15 lines 15, col. 16 lines 63-col. 17 lines 29, col. 25 lines 6-50). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of **Yuasa and Iwamura** to have the determining step of target devices by multicasting the message, receiving one or more responses, estimating a number of devices and determining a number of subgroups because it would have an efficient communications system that improves and reduces the traffic volume by dividing group into smaller group or subgroup and using multicast method to particular subgroup.

20. Claims 5-6, 8-9, 11-12, 14-15, and 17-18 have similar limitations as claims 2-3; therefore, they are rejected under the same rationale.

### **Conclusion**

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (703) 305-7447. The examiner can normally be reached Monday through Friday from 8:30 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam, can be reached at (703) 308-6662.

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications.

Thu Ha Nguyen

March 23, 2004

  
**HOSAIN ALAM**  
**SUPERVISOR / EXAMINER**